

Volume 1 Annex V1-7 Type A Water Licence Applications

Package P4-1

Surface Emergency Response Plan



EMERGENCY RESPONSE PLAN (ERP)



HOPE BAY, NUNAVUT

DECEMBER 2017

Emergency Response Plan (ERP)

Plain Language Overview:

The Emergency Response Plan provides all employees and contractors with written guidelines to be followed in the event of an emergency on the Hope Bay Belt.

Hope Bay, Nunavut

Publication Date: December 2017

Hope Bay Project
c/o #18 Yellowknife Airport
100 McMillan Drive
Yellowknife, NT X1A 3T2
Phone: 867-873-4767
Fax: 867-766-8667

Copyright © 2017 TMAC Resources Inc.

Revisions

Revision #	Date	Section	Changes Summary	Author	Approver
1	Dec 2017	The Plan	Entire Document	TMAC	

Contents

1 Objective	1
2 Introduction	1
3 References.....	1
4 Definitions	1
5 Personnel Safety and Hazard Recognition.....	2
6 Environmental Requirements	2
7 Training Requirements	2
8 Tools and Equipment	3
9 Emergency Response Procedures	3
9.1 Emergency Response Structure	3
10 Emergency Response Procedure	5
10.1 General Procedures.....	5
10.2 Emergency Response Team Preparedness.....	6
10.3 Serious Injury Procedures.....	6
10.4 Fire Procedures	7
10.5 Mine Ventilation and Air Quality Controls	9
10.6 Mine Quality Monitoring.....	9
11 Process Plant Emergency	10
11.1 Process Plant Fire	10
11.2 Hazardous Atmosphere – Hydrogen Cyanide Gas	11
11.3 Reagent Spill	12
12 Aircraft Emergency	12
13 Suspended Worker Rescue	13
14 Person Falling through Ice.....	14
15 Severe Weather and Lightning	14
16 Bomb Threat.....	15
17 Unaccounted-for Personnel	15
18 Watercraft Emergencies	16
19 Wildlife Encounter	16
20 Air Medical Evacuation	16
21 Main Camp and Admin Facilities Plan	18
22 Mine Dry and Mine Offices Complex Plan	19
23 “D” Wing Camp Facility Plan	20
24 “E” Wing Camp Facility Plan.....	21

Appendix 1: Incident Command Centre (ICC) Command Structure Duty Cards.....	1
Emergency Response Coordinator	1
“All Clear” Instruction.....	2
Recorder Duties.....	3
Safety Representative Duties	4
Entrance Guards Duties.....	5
Check In Directors Duties	6
Tag Board Coordinator Duties.....	7
Assembly Point Coordinator Duties	8
Mill/Mine Superintendent Duties	9
Maintenance Coordinator Duties.....	10
Electrical Coordinator Duties	11
Engineering Coordinator Duties.....	12
Fan Guards Duties	13
HSE Superintendent or Designate (Safety Officer) Primary Functions	14
Contracts Manager or Designate (Liaison Officer) Primary Functions.....	15
Chief Engineer or Designate (Planning Officer) Primary Functions.....	16
Project Superintendent Primary Functions.....	17
External Emergency Telephone Numbers.....	18
Telephone Call Record Sheet	19
Log of Events	20

1 Objective

Prompt, effective, and organized EMERGENCY RESPONSE reduces the severity and consequences of accidental losses and emergencies. This Emergency Response Plan (ERP) provides each member of management, supervision and all employees with written guidelines to be followed in the event of an emergency. A well-defined Emergency Response Plan applies to any type of emergency or disaster that may occur.

2 Introduction

These procedures utilize the Incident Command System (ICS) that is a component of the National Incident Management System (NIMS). ICS provides effective, efficient incident management by establishing a common management system clearly understood by all responders, in this case TMAC and Sub Contractor Incident Command Centre (ICC) Responders.

3 References

- 3.1 TMAC Health and Safety Management Manual
- 3.2 NWT/Nunavut Consolidation of Occupational Health and Safety Regulations, 2016
- 3.3 NWT/Nunavut Mine Health and Safety Regulations, 2014

4 Definitions

- **Emergency:** A situation or an impending situation that constitutes a danger of major proportions that could result in serious harm to persons or substantial damage to property and that is caused by the forces of nature, a disease or other health risk, an accident or an act whether intentional or otherwise. An emergency could attract media attention and jeopardize the project organization's credibility which may represent a significant financial or legal liability to the company.
- **Emergency Response:** The actions taken by the Emergency Response Team at the site of the incident and/or elsewhere, to contain, terminate and recover from the incident in order to protect:
 - Employees and others affected by the incident;
 - The environment;
 - Property and assets; and
 - Reputation.
- **Emergency Management:** A program designed to control the consequences (human, environmental and assets) of an emergency. It incorporates both the emergency response and the trigger point at which the plan is initiated.
- **Evacuation:** A state of emergency where all personnel are required to vacate any affected area and assemble at a predetermined safe location.

- **Emergency Response Coordinator (ERC):** The Emergency Response Coordinator is the Site Manager or his designate. He has the overall responsibility, control and coordination of the emergency response.
- **Natural disaster:** Blizzard, White Out, Lightning, Ice Storm, etc.
- **Critical Incident:** Occurrences considered critical incidents are those situations that might present a risk of significant bodily harm, property damage, legal involvement and media activity.
- **Incident Command System (ICS):** The Incident Commander will be the TMAC Representative listed in the Incident Command Centre Flowchart (ICC).

ICC	Incident Command Center
ERC	Emergency Response Coordinator
ERP	Emergency Response Plan
ERT	Emergency Response Team
MAA	Mutual Aid Agreement
MSDS	Material Safety Data Sheet
IAP	Incident Action Plan

5 Personnel Safety and Hazard Recognition

Each member of management and every employee must be trained in the requirements of the ERP. All managers and employees are responsible to be fully familiar with their role in the ERP.

6 Environmental Requirements

Knowledge of the procedures required to control and to contain any potential environmental impacts that could result from an Emergency Incident.

7 Training Requirements

- At least once every year, all persons who are employed at the Hope Bay site shall participate in scheduled evacuation drills and procedures including the fire warning signals in effect at the residence.
- At least once every year, all persons who work in Mill and Surface Operations shall participate in the escape and evacuation drills and procedures including the fire warning signals in effect at the Mill.
- At least once every year, all persons who work in the Underground Operations at Hope Bay shall participate in the escape and evacuation plans and procedures including the fire warning signals in effect at the mine.
- Underground evacuation drills shall be held to assess the ability of all persons in the underground operation to seek refuge and report into the ICC to account for personnel and receive direction from the ERC.

- The underground evacuation drills shall:
 - Be held for each shift at some time other than a shift change and involve all persons underground;
 - Involve activation of all fire alarm systems; and
 - Include evacuation of all persons from their work areas to the surface.
- Whenever a change is made in escape/evacuation plans and procedures for any area of the mine site, all persons affected shall be instructed in the new plans or procedures.

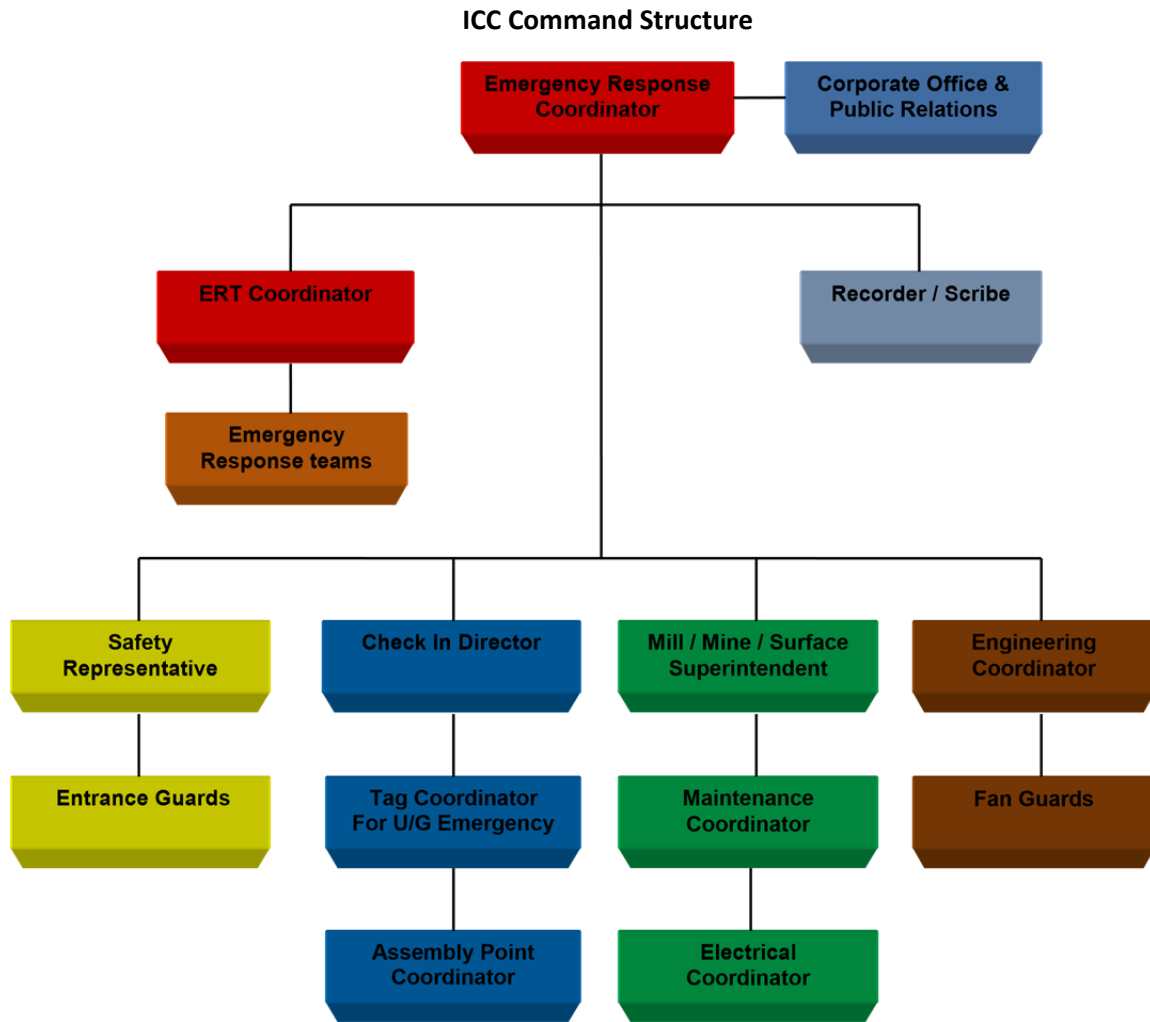
8 Tools and Equipment

The tools and equipment required to eliminate or mitigate the potential consequences of an Emergency Incident that could affect the safety or health of project personnel are specifically outlined in this document.

9 Emergency Response Procedures

9.1 Emergency Response Structure

- Emergency Response Procedures organization includes inter-agency responses with the TMAC Corporate Office, NWT/Nunavut Regulatory Authorities, Hope Bay Emergency Rescue Teams and members of the Mine Rescue Mutual Aid Agreement 2017.
- These procedures utilize the Incident Command System (ICS) that is a component of the National Incident Management System (NIMS). ICS provides effective, efficient incident management by integrating TMAC Emergency Response Procedures and ICC Responders. ICS uses a systematic approach to integrate the best existing processes and methods to unify TMAC Emergency Response Teams into a unified framework.
- The Hope Bay Internal ICC is used to organize on-scene operations for small to complex large incidents. It provides a common organizational structure for incident management. The Hope Bay ICC identifies positions that are tied to functions that must be performed in response to an incident.
- **THE HOPE BAY INTERNAL ICC WILL MANAGE ALL SITE EMERGENCY RESPONSES.**
- Emergencies that require TMAC ICC Emergency Response include, but are not limited to:
 - Serious multiple injuries or fatalities.
 - Inundation of a toxic gas or oxygen deficiency, or Major fire or unexpected explosion.
 - Unexpected fall of ground which injures, traps, or limits egress of workers from the Mine.
 - Major vehicle, equipment, or transportation accident or damage.
- All Hope Bay Managers, Supervisors and First Responders must be familiar with the specific plan in case they must assume and maintain command of an incident until command is properly transferred to TMAC ICC Managers.



- The **ICC** command structure provides an orderly chain of command that is consistent across responding organizations. In this case, responding organizations include Agnico Eagle Meadowbank, De Beers – Gahcho Kue`, Diavik Diamond Mine (2012), Dominion Diamond Ekati Corporation and Giant Mine Emergency Rescue Teams. This chain of command will have a single person, the ERC Manager at its head.
- **ERC/Manager:** Is responsible for the overall incident management. The TMAC Project Manager or designee will assume the role of Incident Commander in response to all Emergency Incidents. The IC will develop the incident objectives on which subsequent Incident Action Planning (IAP) will be based. Should the emergency escalate and require MAA resources. The TMAC IC will approve the IAP and all requests pertaining to requesting additional incident resources.

10 Emergency Response Procedure

10.1 General Procedures

- This procedure outlines the response to any emergency situation, keeping in mind that although every emergency is different, the basic steps in responding to an emergency and the order of priority are always the same.
- Ensure medical aid and protect personnel – Supervisors and First Responders must immediately assess the situation and take care to ensure the safety and well-being of the injured. Notify medical emergency services that assistance is required. Be specific to help get a prompt response.
- Take control – Unless a senior manager is present, Supervisors and/or First Responders need to take control of the situation. The first priority is always the protection and rescue of people. The second is the environment, followed by our property and then production.
- Maintain control – Do not try to do too much. Know your “span of control” capabilities. Maintain your response efforts to directing 6 or less people or actions. Recognize when you need help.
- Control potential secondary events – Secondary incidents are possible at a scene because normal controls may have been critically weakened by the incident. Positive temporary actions to secure the scene need to be taken after quick, but careful, thought of the consequences.
- Preserve evidence – When there is significant loss, good investigation is more important than getting back to work. Preserve the site until the investigation is complete and the proper authorities have been notified. Secure, sign or rope off to prevent further access to a scene.
- Upon being notified of an emergency evacuation either by radio, phone, stench warning system, siren, alarm or any other means, stop work immediately, note the time you received the warning and calmly evacuate using the safest route possible.
 - Stay calm.
 - Notify others in the affected area.
 - Do not rush unnecessarily.
 - Evacuate in an orderly manner.
 - Evacuate by the shortest safe route possible.
 - Never return to work or lunch areas to retrieve personal effects, lunches, etc.
 - Underground: when smoke or toxic gases are encountered – do not hesitate – don a personal self-rescue device.
- Once safely out of your work area, report immediately to the nearest Assembly Area and report to the Tag Board or Assembly Point Coordinator. Remain at the Assembly Point for further instructions.

10.2 Emergency Response Team Preparedness

- The primary emergency response coverage at site will be the TMAC - ICC and the Emergency Response Teams in the event of an emergency. The TMAC Mine Rescue station is located in the Mine Dry Building.
- The TMAC ERT Coordinators will assume the management of the Emergency Response/Mine Rescue teams with the Team Captains taking direction and reporting directly to the TMAC ERT Coordinator. The ERT Coordinator will report to the Emergency Response Coordinator ERC.
- No other direction will be given to the respective teams except through the TMAC ERT Coordinator.

10.3 Serious Injury Procedures

- All employees and Supervisors are responsible to be familiar with the Serious Injury Procedures for the Hope Bay Project and must know the locations of emergency first aid equipment in their areas of work.
- When a serious injury occurs, give appropriate first aid and notify Emergency Services by calling "Code One" on channel one (1) of the hand held or base unit radio or by calling the Mill Control Room at Local Extension 150 immediately. When a response is given provide the following information:
 - Your name;
 - Location;
 - Name of injured;
 - Nature of the injuries; and
 - That you require Medic and Response Teams.
- Prevent further injury, suffering or loss of life. If possible, do not leave the injured person unattended.
- Evaluate the extent of injuries and administer First Aid if so qualified.
- If worker is unconscious, check for:
 - Breathing: If worker is not breathing, provide CPR immediately.
 - Bleeding: Control external bleeding immediately ("Direct Pressure" "Elevation" "Rest").
- Secure the location of the injured worker to prevent further injuries to others.
- Keep the injured worker as comfortable as possible until Emergency Response Personnel arrive on the scene.
- Where serious injury is the result of a hazardous chemical exposure, ensure Emergency Response and Medic personnel are advised of the chemical the injured was exposed to and provide the necessary MSDS information required to affect proper treatment.

10.4 Fire Procedures

Surface Facilities Fire Procedure

- All employees and Supervisors are responsible to be familiar with the Emergency Response Plans for the surface facilities and must be trained to demonstrate knowledge and proficiency in responding to an emergency.
- Where a FIRE exists that may affect other personnel working in the Process Plant or area, the Emergency Procedures must be initiated.
- Know the location of fire extinguishers and firefighting equipment in your work area.
- Where the fire is small, use nearby fire extinguishers to extinguish the fire provided it is safe to do so.
- Do not expose yourself to unnecessary risk and keep a clear area of retreat behind you.
- Immediately notify Emergency Services by calling "Code One" on channel one (1) of the hand held or base unit radio or by calling the Mill Control Room at Local Extension 150 immediately. When a response is given provide the following information:
 - Your name;
 - Location of the fire;
 - Type of fire (if known);
 - Best route to access area; and
 - Any other pertinent information.
- The Supervisor or Safety Representative answering the emergency call will sound the alarm and contact the ERT Coordinators.
- All information will be shared and request immediate response by the ERT Teams.
- The ICC will be activated and all ICC Members will be required to take their roles.

When Personnel Are Evacuating from Buildings

- If a building is filling with smoke stay close to the floor, air quality and visibility will be better.
- In a smoke filled building never open a door until you test it for heat. Touch the door with the back of a hand. If it is hot, do not open it.
- If you do open a door to evacuate, ensure you tightly close the door behind you. This will slow the advance of the fire.
- All personnel responding to the surface alarm will stop work immediately, proceed to the Assembly Point and report in to the Assembly Point Coordinator or Tag Board Coordinator. Personnel will remain in the Assembly Point and await further instructions.

Underground Fire

- All employees and Supervisors are responsible to be familiar with the Emergency Response Plans for the Hope Bay site and must be trained to demonstrate knowledge and proficiency in responding to an emergency.
- Where a fire exists that may affect other personnel working Underground, the Emergency Procedures must be initiated.
- Know the location of fire extinguishers and firefighting equipment in your work area.
- Where the fire is small, use nearby fire extinguishers, if so trained, to extinguish the fire provided it is safe to do so.
- Do not expose yourself to unnecessary risk and keep a clear area of retreat behind you.
- NEVER don a self-rescuer device to fight a fire.
- When the fire is out, notify your Supervisor immediately and evacuate the U/G crew to surface if so advised.
- The Supervisor will notify the Mine Superintendent/Manager of the incident.
- If the fire is too big to put out, do not hesitate. Notify Emergency Services by calling "Code One" on channel one (1) of the hand held or base unit radio or by calling the Mill Control Room at Local Extension 150 immediately. When a response is given provide the following information:
 - Your name;
 - Location;
 - Nature of the Emergency;
 - Current situation; and
 - That you require Mine Rescue Response.
- Mine Supervision will release the Stench Gas into the mine to notify workers of the emergency.
(Future Construction will allow the Stench Gas System to be initiated from the Mill Control Room)
- Upon smelling stench, all workers should don a self-rescue device and make their way to the nearest refuge station for fresh air source to you.
- If workers are unable to make their way to a refuge station or fresh air source they are to utilize the Ocenco EBA6.5 SCSR which are located strategically throughout the mine and seek alternate means of refuge.

Surface Fire Effecting Underground Operations

- Due to the current orientation of the mine ventilation systems where contaminated air from a fire can be drawn into the Mine and affect the safety of the underground personnel, the mine must be evacuated immediately upon notification of a surface fire near the Fresh Air Intake.

- Upon discovering or being notified of a fire on surface, the Mine Superintendent will notify the Supervisor that mine evacuation procedures must be initiated. The Mine Superintendent will notify the ICC that the underground has been evacuated.
- When the Supervisor cannot be immediately contacted, the Mine Superintendent will initiate the Stench Warning Systems.
- Underground personnel will be transported to surface and will report to the Tag Board, Tag-Out and await further instructions.

10.5 Mine Ventilation and Air Quality Controls

Surface Fans – In Case of Fire

In the event of a Mine fire, efforts will be undertaken to ensure ventilation to the Mine is maintained.

- Operation of the Mine ventilation fans will be guarded and monitored to ensure continuous operation of the fans at all times.
- During a fire in the Mine, there will be no alteration to the operation of the Surface fans without the authorization of the Emergency Response Coordinator (ERC) in charge of the emergency.
- The effects of the alteration to the mine ventilation fans shall be clearly understood before any changes are made.

Surface Fan Failure

In the event of a surface fan failure due to a malfunction, incident, power failure, or other such unplanned or unscheduled event that affects ventilation to the Mine the following will apply:

- **Less Than One Hour:** All work will cease in all areas supplied by mechanical ventilation until the main ventilation system can be restored. Personnel who are underground will retreat to the underground refuge stations and will await the restoration of power and ventilation.
- There will be no entry of persons into the mine until the ventilation is restored. Personnel will remain in the underground refuge stations for a maximum of one hour until the all clear is given or the order has been given to evacuate to surface.
- **More Than One Hour:** Upon restoration of ventilation, air quality testing will be performed in the active workings of the mine affected by the ventilation interruption before personnel are allowed to return to work.

10.6 Mine Quality Monitoring

The air quality in the mine must be maintained at all times to ensure personnel working in the mine are not exposed to unacceptable levels of potentially toxic monitoring devices that will alarm when unacceptable levels of toxic gases are present in the mine.

- Supervisors will carry a portable gas monitor for every shift.

- The air quality must be maintained at all times as follows:
 - oxygen (O₂): at least 19.5%, not more than 23% (21% normal);
 - carbon monoxide (CO) < 25 ppm TLV;
 - nitrogen dioxide (NO₂) < 2 ppm TLV;
 - carbon dioxide (CO₂) < 5,000 ppm TLV; and
 - flammable gases (LEL) < 2 % (in normal air).

11 Process Plant Emergency

11.1 Process Plant Fire

- All employees and Supervisors are responsible to be familiar with the Emergency Response Plans for the surface facilities and must be trained to demonstrate knowledge and proficiency in responding to an emergency.
- Where a FIRE exists that may affect other personnel working in the building or area, the Emergency Procedures must be initiated.
- Know the location of fire extinguishers and firefighting equipment in your work area.
- Where the fire is small, use nearby fire extinguishers to extinguish the fire provided it is safe to do so.
- Do not expose yourself to unnecessary risk and keep a clear area of retreat behind you.
- Immediately notify Emergency Services by calling “Code One” on channel one (1) of the hand held or base unit radio or by calling the Mill Control Room at Local Extension 150 immediately. When a response is given provide the following information:
 - Your name;
 - Location of the fire;
 - Type of fire (if known);
 - Best route to access area; and
 - Any other pertinent information.
- The Supervisor or Safety Representative answering the emergency call will sound the alarm and contact the ERT Coordinators.
- All information will be shared and request immediate response by the ERT Teams.
- The ICC will be activated and all ICC Members required to take their roles.

When personnel are evacuating from Process Plant:

- If a Process Plant is filling with smoke stay close to the floor, air quality and visibility will be better.

- In a smoke-filled building never open a door until you test it for heat. Touch the door with the back of a hand. If it is hot, do not open it.
- If you do open a door to evacuate, ensure you tightly close the door behind you. This will slow the advance of the fire.
- All personnel responding to the surface alarm will stop work immediately, proceed to the Assembly Point and report in to the Assembly Point Coordinator.
- Personnel will remain in the Assembly Point and await further instructions.

11.2 Hazardous Atmosphere – Hydrogen Cyanide Gas

- Hydrogen cyanide gas is produced through the decomposition of sodium cyanide solution.
- Hydrogen cyanide gas will be created if the pH of the cyanide solution or process slurry containing sodium cyanide is not maintained above 10.8 pH.
- High concentrations of hydrogen cyanide gas will form very quickly if sodium cyanide were to be exposed to nitric acid. This is an extremely dangerous situation.
- Hydrogen cyanide gas is very poisonous. Inhalation of this gas can be fatal.

Workplace Exposure Limit

- The Short Term Exposure Limit (STEL) for Hydrogen Cyanide Gas is 4.7 ppm. A worker cannot be exposed to this level of HCN for a period exceeding 8 hours.
- The threshold limit value or (TLV) for hydrogen cyanide gas in the work place is 10 ppm.
- Hydrogen cyanide gas content is continuously measured by eight (8) stationary gas detectors, which are located strategically in the process plant and cyanide mixing areas. In addition, personal Single gas detectors worn by all Mill Operators and Workers.

High Concentration Alarm

If any of the eight stationary gas detectors measure a gas concentration greater than 10.0 ppm, the warnings will be activated.

- The worker identifying the alarm on either their personal or the stationary monitor will activate the emergency evacuation notification protocol.
- The worker will proceed to the nearest “Call Base” and initiate the emergency notification by sounding the air horn located there at one-second intervals as they retreat from the Process Plant.
- If safe to do so the worker will remain at the door and continue to sound the air horn at one second intervals until all workers have evacuated or the air horn has been depleted.
- Once outside of the Process Plant the worker will utilize their hand held radio or base unit and call “Code One (1)” on channel One (1) of their hand held or base unit radio to active emergency response teams.

- When a response is given, provide the following information:
 - Your name;
 - Location;
 - Nature of the Emergency;
 - Current situation; and
 - That you require Mine Rescue Response.
- After doing so, proceed to the Assembly Area and report in to the Assembly Coordinator when they arrive.
- Do not attempt to re-enter the Process Plant for any reason.
- Re-entry Plans will be determined once all are accounted for and building has been ventilated.
- Trained workers who will be wearing appropriate SCBA Breathing Apparatus and gas testing equipment will only perform re-entry into the Process Plant.

11.3 Reagent Spill

- Identify the reagent that has been spilt. Depending on type of product that has been spilt, activate the ERP accordingly.
- Evacuate the general area of the spill immediately. Only required personal essential for containment/cleanup are required to be in the area.
- Contact the Process Plant Supervisor and Safety Department once area has been evacuated.
- Barricade the area and restrict entry into the area of the spill.
- Ensure required PPE is utilized to contain or cleanup the area that is affected.
- Ventilate the work area as necessary to eliminate any airborne contaminants.

12 Aircraft Emergency

- **Plane on fire on airstrip:** Plane crew activates fire suppression system and uses hand handle fire extinguisher if safe to do so. If plane continues to burn move employees away from plane and set up spill control for fluids and burnt material.
- **Plane crash on airstrip:** Move firefighting extinguishers as close as safe to do so. Remove crewmembers from plane following safe rescue practices. If the aircraft blocks the airstrip for incoming aircraft take pictures of the affected area and move parts that are blocking airstrip.
- **Plane crash off airstrip:** If helicopters on site use them to access the crash site with onsite emergency crews. In winter, months with a good snow pack use snowmobile or Tucker to access site estimate of maximum distance 15 kilometres. Aerial drones may be utilized as a means to inspect the downed aircraft if physical access cannot be achieved.

13 Suspended Worker Rescue

In the case where a worker has fallen and is suspended from his/her anchor point by means of their fall arrest harness; work in the area shall cease immediately and preparations for emergency retrieval shall commence.

- Rescue must come rapidly to minimize the dangers of suspension trauma. The circumstances together with the lanyard attachment point will determine the possibilities of self-rescue.
- Regardless of whether a worker can self-rescue or must rely upon others, time is of the essence because a worker may lose consciousness in only a few minutes.
- Workers should be trained to try to move their legs in the harness and try to push against any footholds or stirrups that are available on each TMAC Harness issued.
- Immediately after the event the Supervisor in charge (or Crew Leader) must take control of the situation.
- All workers in the immediate vicinity of the incident stop working. The Supervisor or designate quickly evaluates the situation and identifies any further hazards that could arise.
- After evaluating the situation and making contact with the suspended worker (either verbally or visually), the Supervisor will call notify Emergency Services by calling "Code One" on channel one (1) of the hand held or base unit radio or by calling the Mill Control Room at Local Extension 150 immediately. When a response is given provide the following information:
 - Your name;
 - Location;
 - Nature of the Emergency; and
 - Current situation.
- That you require ERT Response and request that the retrieval equipment be transported to the location of the suspended worker if assistance equipment is required.
- The Supervisor (or a worker assigned to the task) isolates the accident zone and its perimeter to limit further exposure.

Treatment for a Suspended Worker

- Immediately following the retrieval of a worker who has been suspended from height due to a fall, the worker will be escorted to the Medic Station.
- Do not make the worker walk any distance. Bring transport directly to the worker.
- The worker must then be transported to the site Medic for evaluation and for transport to a medical facility to ensure there is no effects from suspension trauma.
- Even if the worker was only suspended for a short time they will be required to be examined by a Doctor.

14 Person Falling through Ice

- **Time is critical for rescuing someone that has fallen through the ice.**
- The first person at the scene shall call a Code One on channel 1.
- If it is safe to do so, throw a line or use some type of long material to pull the person onto the good ice.
- If the person is rescued before the ERT team can arrive, keep the person warm in a heated environment (i.e., vehicle) or wrap the person in dry warm garments.

15 Severe Weather and Lightning

Severe Weather

Severe weather events can come in a variety of forms including heavy snow, white out, rain, and wind events. Depending on the event, numerous aspects of the operation may be affected including but not limited to potential harm to people, site access, transportation methods, stability of facilities, and environmental aspects.

- Determine the threat of the severe weather event. Supervisors will be required to follow the TMAC Severe Weather Triggered Action Response Plan (TARP) DRAFT, to ensure proper steps are taken in the event of a severe weather threat.
- Where it has been determined that a severe weather event such as snow storm/whiteout conditions, heavy rain or high winds pose a threat to the safety and well-being of personnel working on site, Supervision will contact the Mill Control Room and initiate Emergency Response Procedures by calling "Code One" (1).
- All personnel responding to the alarms will stop work immediately and proceed to the Administration Building or Assembly Area and make contact with the Assembly Coordinator. Personnel will remain in the Administration Building or Assembly Area and await further instructions.
- Supervision will ensure all personnel are accounted for.
- A determination will be made on whether safe routine access and egress from the site to the Main Vent Fans can be maintained.
- If safe access to the Mine Vent Fans cannot be maintained, Supervision will evacuate the underground workings.
- If safe egress from the underground cannot be maintained; advise all site employees to remain in refuge in the refuge stations until the severe weather event has passed or lessened to the point where safe egress from the site is assured for all employees.
- If travel on site by emergency response teams is necessary, determine the hazards of traveling during the weather event and advise responders of the precautions to be taken to ensure safe travel.

Lightning

Severe lightning storm events pose a safety threat to all personnel working on site, whether on surface or underground. Emergency Response procedures will be activated when the threat of lightning in the immediate vicinity is imminent.

- In the event of thunder and lightning storms in the vicinity of drill rigs, heavy equipment or cranes all employees and contractors should begin to monitor weather conditions and report any unstable weather conditions to supervisors as well as all other crew personnel.
- It is imperative that if a thunderstorm is approaching that the supervisor informs all drill hands, operators and ground men of the impending storm, so that appropriate steps can be taken to safely cease operations until storm is clear of the work area.
- For Underground Operations all work may continue as usual with the exception of transportation of Explosives on surface.
- When the potential for a lightning storm is evident all transportation to and from the Mine portal must halt. Any explosives on surface must to be returned to the appropriate Magazine without delay or transported to an underground magazine immediately.

16 Bomb Threat

The following procedures can help the person taking a bomb threat call respond appropriately:

- Remain calm. Be courteous and do not interrupt the caller.
- Note whether the caller is male or female. Listen for any background noises or sounds and any caller mannerisms, voice characteristics or accents. Make notes of your observations.
- Get another employee's attention and use a pen and paper to advise other person to call for assistance.
- Keep the caller on the phone as long as possible. Do not hang up until after caller does. The phone call may be able to be traced.
- If your caller ID system displays the caller's phone number, write it down.
- Ask questions to get information. Write all information down.
- Try to find out the location of the bomb, the time of detonation, what it looks like.
- Notify Emergency Services by calling "Code One" on channel one (1) of the hand held or base unit radio or by calling the Mill Control Room at Local Extension 150 immediately. The surface and underground alarms will be initiated, security contacted and all employees and visitors will be evacuated to the Assembly Points.
- When all personnel are accounted for, the project site will be evacuated. All personnel will report to the bus drop off area behind the Medic Building and muster to await further instructions.

17 Unaccounted-for Personnel

- Supervision will attempt to contact any personnel that are deemed missing or unaccounted-for either by radio, satellite phone, and/or physical inspection.
- If contact cannot be established, the supervisor will notify senior management.
- All departments on site will be contacted to check that the missing worker is not in their area.

- If the worker is still not located, additional personnel are assembled and begin preparation for a potential search and rescue. Management along with the personnel conducting the search will determine the “Urgency” (i.e., weather, visibility, etc.).

18 Watercraft Emergencies

In the event of boat capsizing or other emergency during operation of a watercraft, initiate a Code One (1) call across the radio. If a boat is overturned, conduct the following:

- Use self-saving technique H.E.L.P. (draw knees up to chest).
- Provide your position on the radio and number of people requiring rescue.
- If able to do so, upright the boat.
- If not, get as much of your body out of the water by climbing on top of the boat.
- If close to shoreline and you feel you can make it safely, swim to shore.

19 Wildlife Encounter

- All wildlife encounters which threaten life or has the potential to threaten life must be reported immediately by activating a Code One (Reference SWP III-0004 Bear Notification and Responses (rev.1)).
- Seek shelter indoors or in a vehicle and prepare to use deterrents if necessary. Senior management will notify the Wildlife Response Team, which will respond accordingly.

20 Air Medical Evacuation

The onsite medic will determine the severity, critical vs. stable, of the medical evacuation in consultation with the on call doctor. The on-site medic will assess, stabilize, and prepare for medical evacuation. All air medical evacuations will transport to Stanton Hospital in Yellowknife unless otherwise instructed by medical control. (Please reference **Industrial Medical Evacuation Plan**.)

Critical Medical Evacuation

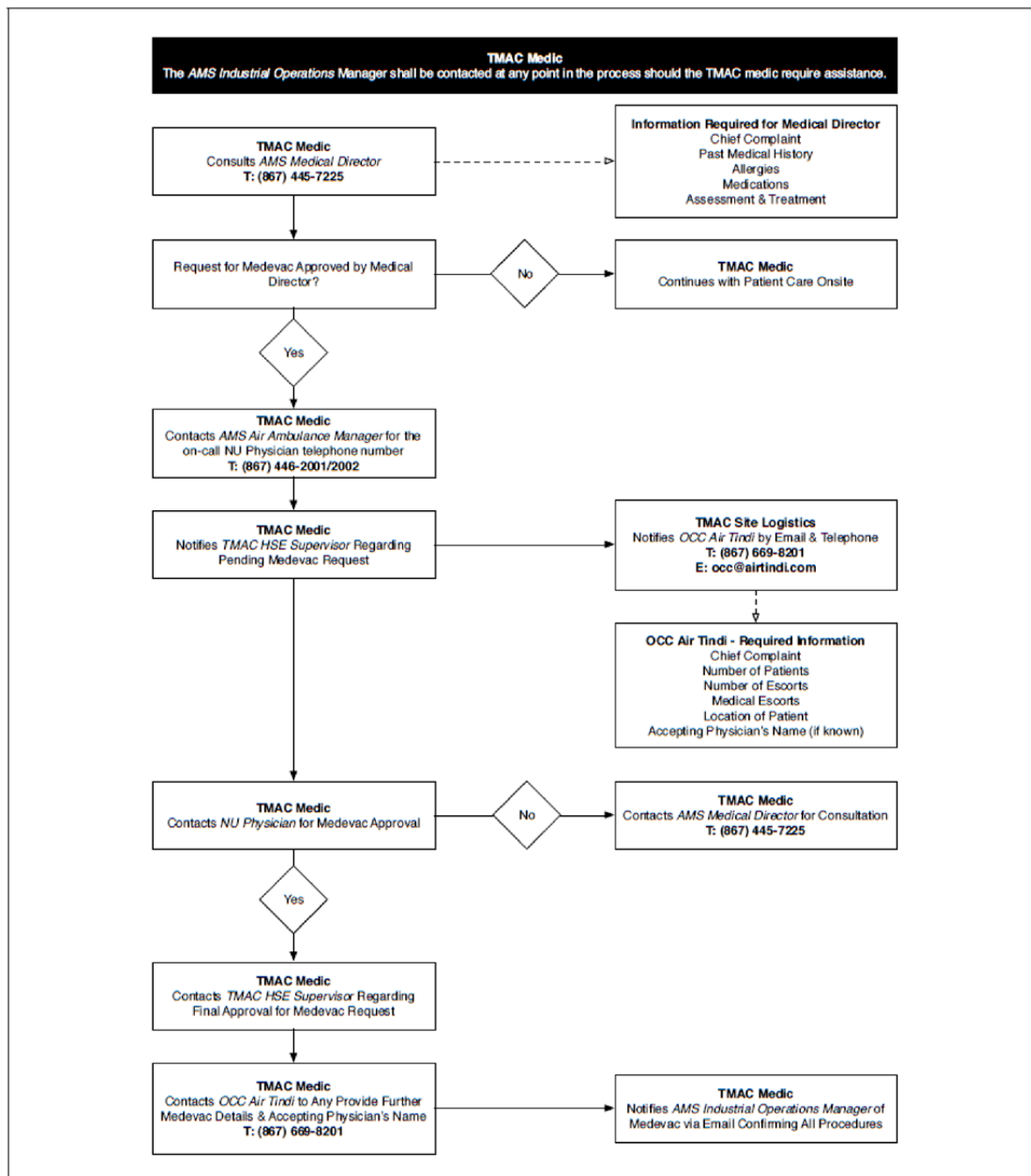
- All high risk work will cease due to the critical nature of the situation causing the on-site medic to focus solely on one individual or situation.
- Low risk work can continue on site as per management’s discretion and available resources.

Stable Medical Evacuation

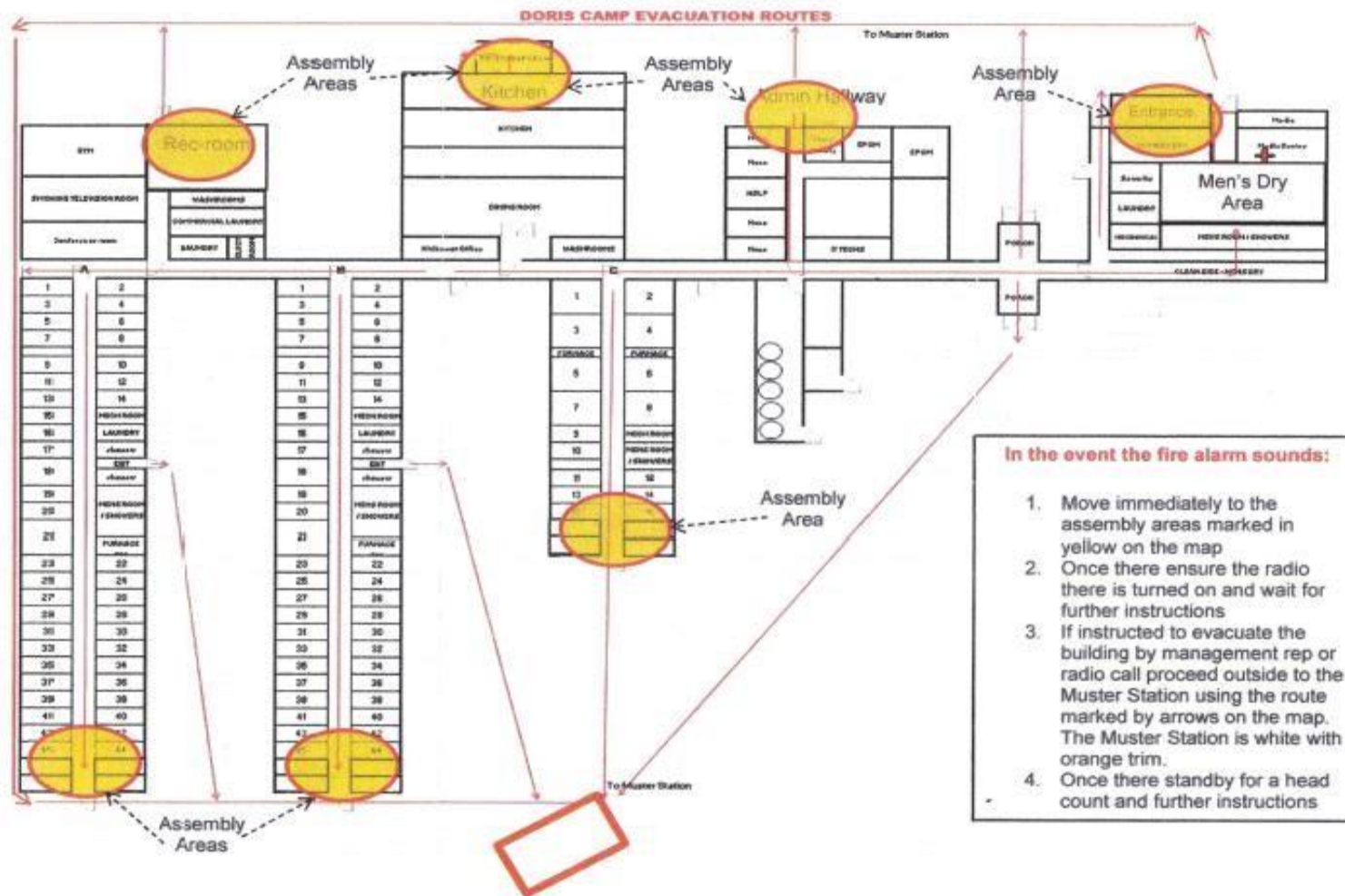
- Work on site shall continue as per routine with the acknowledgment of the ongoing medical evacuation. If the patient’s condition devolves to critical, the situation will be reevaluated in conjunction with the medic and management.

All Clear

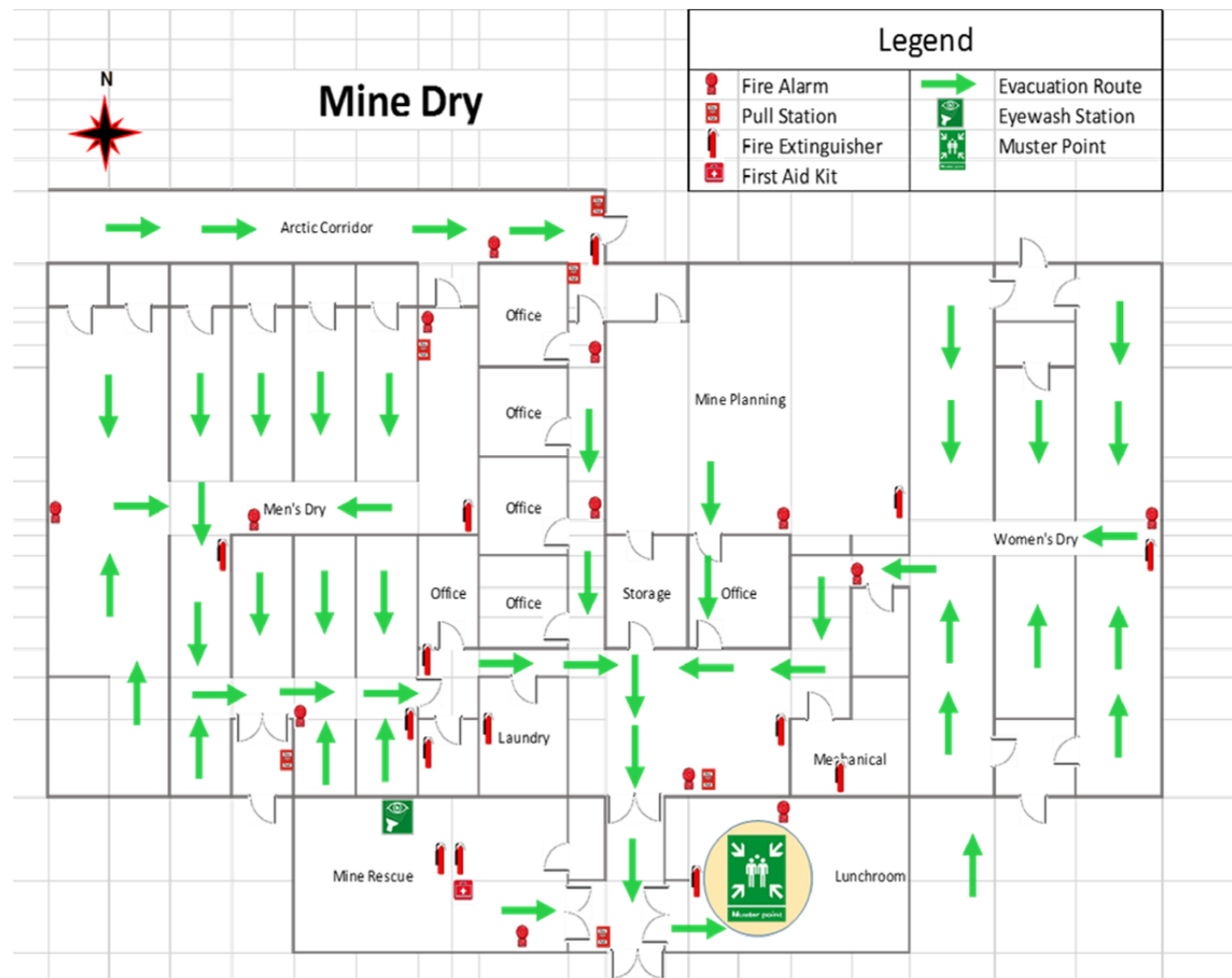
- The All Clear will be given by the ICC only when all personnel are accounted for, the emergency has been addressed and plans for recovery operations have commenced.
- When you are Tagged Out and accounted for, do not leave the site. All personnel on site are responsible to remain on site for further instructions or until they are released by the IC to leave the project site.



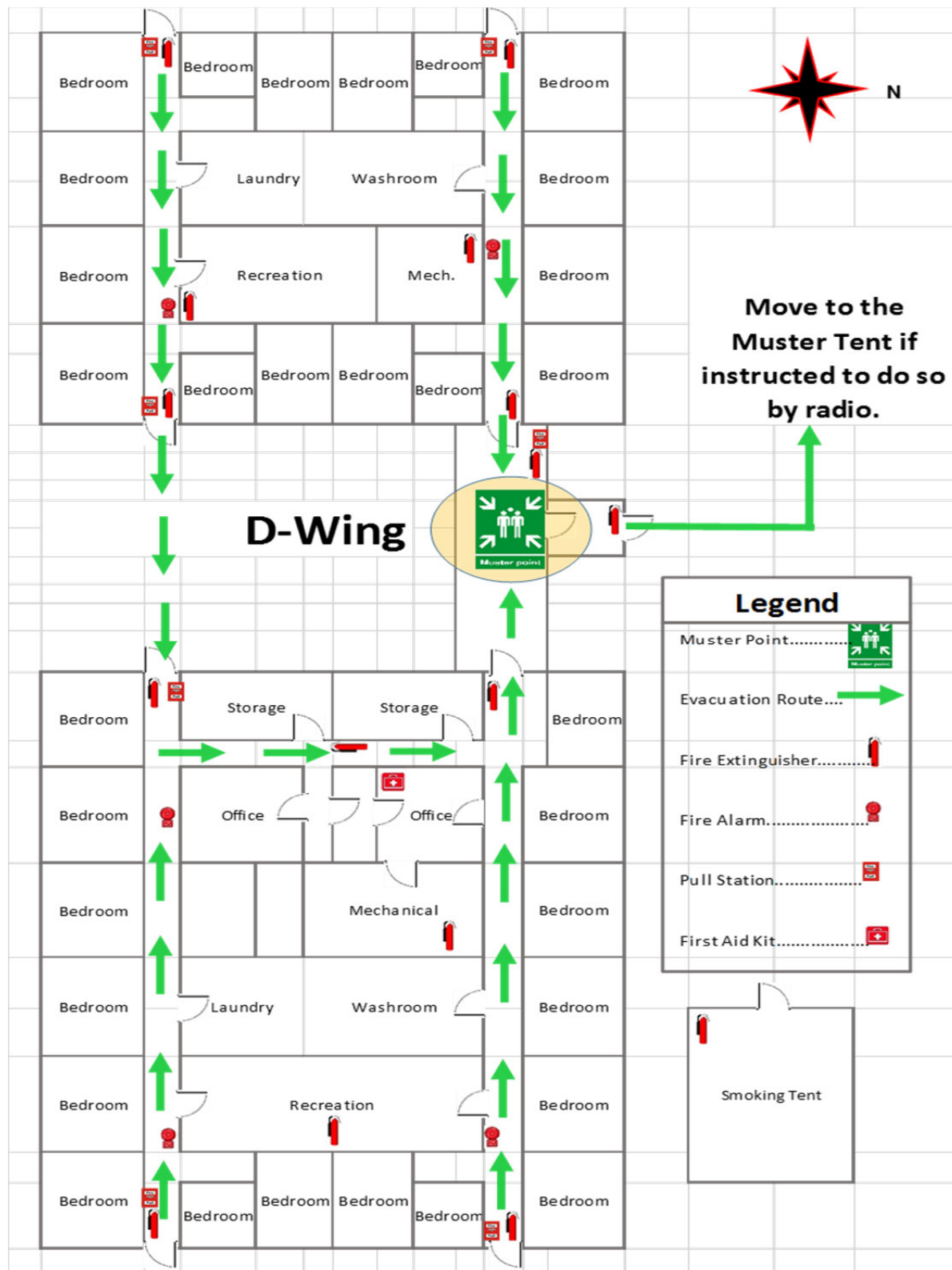
21 Main Camp and Admin Facilities Plan



22 Mine Dry and Mine Offices Complex Plan



23 “D” Wing Camp Facility Plan

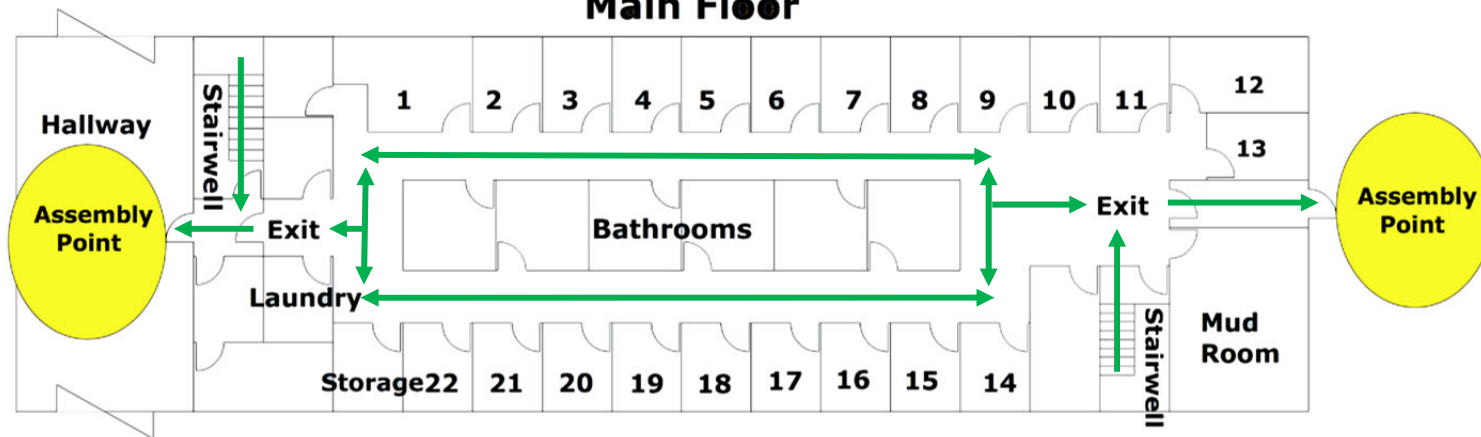


24 “E” Wing Camp Facility Plan

Second Floor



Main Floor





EMERGENCY RESPONSE PLAN (ERP)

HOPE BAY, NUNAVUT

Appendix 1: Incident Command Centre (ICC) Command Structure Duty Cards

Emergency Response Coordinator

The first or most senior person responding to the emergency will staff this position. This position could be reassigned if a more qualified or senior person was to respond.

1. Appoint a person to the recorder position and have that person record all communications entering and leaving the control center.
2. Appoint the control center coordinators, Issue their duty sheets.
3. Check to ensure the **Emergency Response Teams** have been called out if needed.
4. Check to ensure Site Medic's and emergency services have been called out.
5. Shut down all non-essential communication on site. Outside telephone lines and internet outside of the ICC must be severed.
6. Contact onsite TMAC Management and necessary off site Management personnel.

Time: _____ By Whom: _____

7. Ensure that all appropriate government agencies have been notified. (Safety Representative)

Time: _____ By Whom: _____

8. Obtain information about the Emergency alarm raised and or stench release details.
9. Check with the Tag Board Coordinators or Check in Director for:

- Number of persons affected:

Number: _____ Time: _____

- Number of persons accounted

Number: _____ Time: _____

10. Continue to provide direction until the following condition are established:

- All personnel are safe and accounted for: Time: _____
- The mine emergency has been abated: Time: _____

“All Clear” Instruction

1. Notify the **Check in Director** that the **“All Clear”** has been given and to relay the information to the Assembly Point, and Assembly Point Coordinator.
2. Notify the **Safety Representative** that the **“All Clear”** has been given and that the Entrance Guards are to be notified so they may report in and that normal movement of personnel may resume.
3. Notify the other coordinators so that personnel may be debriefed and normal duties may resume. Ensure that power and ventilation are restored back to normal.
4. Continue to provide direction until the following conditions are established:

	Time
All personnel are safe and accounted for	_____
The Mil/Mill emergency has been abated	_____
Ventilation has been restored	_____
The Mine has been cleared of all gases	_____
The Stench System has been re-charged	_____

5. Notify the ICC Team personnel that the **“All Clear”** has been given.
6. After the **“All Clear”** has been given sign the logbooks.
7. Continue to receive and record information on the accompanying sheets from other coordinators as it arrives.
8. Give the **ALL CLEAR** when the above conditions have been verified and pass the information on to TMAC Management representatives, other supervisors, and government agencies.

Time: _____ By Whom: _____ Signature: _____

9. Conduct a **debriefing** session with other coordinators and the investigating Emergency Response Team(s).

Recorder Duties

- This role is responsible to ensure that all communications in/out of the control center are recorded. This information will be used during and after the incident to ensure that all measures are or have been taken.
- The recorders position within the incident command structure is to ensure that all communications between the Emergency Response Coordinator and all incident coordinators is recorded.
- Record all times, events, orders and decisions made by the command center. To ensure that this is completed there are two emergency action logs that will be used to capture the required information. A bound or spiral book will be supplied to use along with the action logs.
- Record events and orders from outside the command center, as they happen, on the record book.
- Ensure that the command center has adequate office supplies on hand. If needed, ask the support coordinator for personnel from the muster point holding areas to act as runners. Have these runners procure additional supplies as needed.
- Compile copies of all photos, written orders and directions.
- Procure and set up any office materials needed for the command center.
- After the "ALL CLEAR" has been given ensure that the Emergency Commander has signed all of the logs and logbooks.
- After the debriefing all action logs and other records of the emergency will be given to the safety representative for filing.

Safety Representative Duties

- After appointment by the incident commander, your responsibility is to oversee all safety aspects of the Emergency.
- You will assess the hazards that may be encountered for the emergency and mitigate the hazardous situations.
- You will provide guidance to the Command Staff on the incident action plan for safety implications.
- The Safety Representative will appoint Entrance Guards to be strategically placed to guard entry into the incident area and maintain contact with the entrance guards to ensure no unauthorized entries into the incident area.
- Initiate preliminary investigation of accidents within the incident area
- Exercise emergency authority to stop and prevent any unsafe acts
- Ensure that all appropriate government agencies have been notified.

Entrance Guards Duties

- After being appointed by the Safety Representative, your responsibility is to barricade and guard the entrance to the Incident area.
- There may be several guards needed to properly secure the access to the Incident area.
- You will be responsible to guard and allow only authorized personnel to enter the Incident area.
- You will maintain radio contact with the Safety Director on any personnel entering or exiting the Incident area.
- Instruct any bystanders or people leaving the Incident area to report to the nearest muster point.
- Remain at your post until the ALL CLEAR has been given.

Check In Directors Duties

- After appointment by the incident commander, take up a position in the control centre.
- This role will report to the incident commander on all personnel accountability issues related to the incident.
- Will oversee the tag board coordinators and the assembly area coordinators to ensure that all personnel are accounted for during an emergency.
- Appoint and oversee the one (1) Tag Board and three (3) muster point coordinators:
 - Underground Tag Board Coordinator: _____
 - Assembly Point Coordinator 1: Main Assembly Tent _____
 - Assembly Point Coordinator 2: “D” Wing _____
 - Assembly Point Coordinator 3: Mill Pad _____

The Check In Director will remain in contact with Tag Board Coordinator and Assembly Point Coordinators to relay information on number of personnel accounted for and unaccounted for in the surface and in the mine.

Tag Board Coordinator Duties

- After appointment by the Check In Director take a radio and proceed to the Underground Tag Board.
- This person is to remain at the tag board and ensure that no tags are removed from the board.
- Begin recording the names and number of personnel that are tagged in on the tag board.
- Notify the Check In Director when all employees have reached surface and tagged out or to relay information on workers that still are not accounted for and are still in the mine.
- Continue the procedure until all personnel are accounted for and report immediately to the Check In Director when that is the case.
- After the “ALL CLEAR” is given, ensure that the Tag Board is in order and submit all your accounting forms to the Check In Director.

Assembly Point Coordinator Duties

- After appointment by the Check In Director take a radio and proceed to the Assembly Points.
- This person will relay information on all employees that have arrived at the Assembly points.
- Begin recording the names and number of personnel at the Assembly Point and relay the information to the Check In Director.
- Coordinate with other Assembly Point Coordinators if unable locate a specific employee and pass the information on to the Check In Director.
- Once all surface personnel are accounted for at the Assembly Points contact the Check In Director and coordinate to move the personnel indoors to the main assembly area or designated alternate venue if the weather is cold.

Mill/Mine Superintendent Duties

- The Mill/Mine Superintendent will coordinate the resources of the maintenance, electrical and departments to ensure that necessary equipment is kept operational. The Mill Control Room Operator also reports to him on all incident information.
- Consult with the Incident Commander to determine the overall action and priority requirements. Provide support and advice to the Incident Commander, if necessary.
- Ensure that the ICC has activated all evacuation procedures and all emergency equipment is working properly.

Alarm Activated: Yes ☐ No ☐ Time: _____ (a.m./p.m.) By: _____

- Ensure that the Electrical Coordinator has the communications equipment into the ICC are working properly and maintained if needed.
- Ensure that communications from Mine Rescue Room are relayed to the ICC.

Communications Status: _____ Time: _____ (a.m./p.m.) By: _____

- Ensure that the Electrical and Maintenance Coordinators are prepared if needed to provide electrical power from back-up generators if power is interrupted.
- Ensure that electrical power is maintained to the compressors, and ventilation fans.
- Be aware of the overall condition of the electrical system on surface and underground.

U/G Electrical Status: _____

Surface Electrical Status: _____ Time: _____ (a.m./p.m.) By: _____

- Remain at the Control Center area and continue to provide support as required until the ALL CLEAR is given. Attend the debriefing session when called.

Maintenance Coordinator Duties

- Provide mechanical support and provide the Mill/Mine Superintendent with advice on maintenance support matters, if necessary. You should primarily be located near the emergency area to ensure that critical equipment is operational.
- If additional skilled mechanical personnel are required, request the personnel be released from the Assembly Point. Coordinate this with the Mill/Mine Superintendent and the Safety Representative.
- Be prepared to arrange for and supply transportation as required for moving essential personnel and supplies.
- Be prepared if needed to assist the Electrical Coordinator coordinating electrical power from back-up generators if power is interrupted. Coordinate with the Electrical Coordinator to ensure the generators are prepared for use.
- Ensure that rescue equipment is in mechanical readiness.

Equip. Status: _____ Time: _____ (a.m./p.m.) By: _____

- Remain at ready and continue to provide support as required until the ALL CLEAR is given.
- Attend the debriefing session when called.

Electrical Coordinator Duties

- Provide electrical support and give the Emergency Response Coordinator advice, if necessary.
- Ensure that the communications and video in the Control Center are working properly and maintain if needed.
- Be prepared if needed to provide electrical power from back-up generators if power is interrupted. Coordinate with the Mechanical Coordinator to ensure the generators are prepared for use.
- Provide drawings of the electrical installations in the mine and surface buildings.
- Maintain electrical power to the compressors, and ventilation fans.
- Be aware of the overall condition of the electrical system on surface and underground.
- All fans are working properly. Contact the Fan Guard for information on surface fans once the guard has been assigned to the task.
- After surface personnel have been accounted for at the Assembly Area, arrange to have electrical personnel assigned to perform emergency electrical work as needed.
- Remain at ready area and continue to provide support as required until the ALL CLEAR is given.
- Attend the debriefing session when called.

Engineering Coordinator Duties

- After appointment by the **Emergency Response Commander**, take up a position in the **Command Center**.
- You will be responsible for assigning Fan Guards for main Vent Fans and escape way, and relaying information gathered from the Fan Guards on air quality results to the Command group.
- Provide guidance to the Incident Command Center if ventilation changes are necessary in both the Mill and Mine.
- Provide technical advice to the Emergency Response Commander as requested for both the Mill and Mine.
- Provide detailed drawings of the Mill and Mine to assist in planning the IAP.
- Remain at the Command Center and continue to provide assistance until the ALL CLEAR has been given.
- Inform the Fan Guards that the ALL CLEAR has been given.

Fan Guards Duties

- After appointment by the **Engineering Coordinator**, you will take up a position at the **Mine Ventilation Fans**.
- You will be responsible for guarding the ventilation fan and escape way and relaying information gathered with your Air Quality Monitoring Equipment on air quality results to the Command group.
- Provide guidance to the Engineering Coordinator if ventilation changes are necessary.
- Ensure no workers enter the Ventilation Plenum unless authorized by the Incident Commander.
- Remain at the Fan location and continue to provide assistance until the ALL CLEAR has been given. Inform the Fan Guards that the ALL CLEAR has been given.

Command Staff positions may also be required depending on the nature of the Emergency Incident. These positions consist of Safety Officer (SO), Liaison Officer (LO) Planning Officer (PO).

HSE Superintendent or Designate (Safety Officer) Primary Functions

- Identify and mitigate hazardous situations.
- Create a Safety Plan.
- Ensure safety messages and briefings are made.
- Exercise emergency authority to stop and prevent unsafe acts.
- Review the incident action plan for safety implications.
- Assign assistants qualified to evaluate special hazards.
- Initiate preliminary investigation of accidents occurring in the incident area.
- Review and approve a medical plan.
- Participate in planning meetings to address anticipated hazards associated with future operations.

Contracts Manager or Designate (Liaison Officer) Primary Functions

As directed by the Emergency Response Coordinator (ERC):

- Determine, according to direction from the ERC, any information for release.
- Serve as information liaison to Corporate Office and Sub Contractor Representatives.
- Serve as Information liaison to non-essential personnel that are standing down on site.

Chief Engineer or Designate (Planning Officer) Primary Functions

- Collect and manage all incident-relevant operational data.
- Supervise preparation of the IAP.
- Provide input to the IC and Operations in preparing the IAP.
- Conduct/facilitate Planning Meetings.
- Compile and display incident status information.
- Establish information requirements and reporting schedules for Units.
- Determine need for specialized resources.
- Assemble information on alternative strategies.
- Provide periodic predictions on incident potential.
- Report significant changes in incident status.

Project Superintendent Primary Functions

- Ensure the safety of tactical operations.
- Manage tactical operations.
- Develop the operations portion of the IAP.
- Supervise execution of the operations portion of the IAP.
- Request additional resources to support tactical operations.
- Approve the release of resources from active operational assignments.
- Make or approve expedient changes to the IAP.
- Maintain close contact with the IC, subordinate Operations personnel, and others involved in the incident.

External Emergency Telephone Numbers

WSCC Accident Reporting Line (24 hours)	1-800-661-0792
WSCC General Mines Inspector (Prevention Services)	867-669-4412
WSCC General line (Yellowknife)	867-920-3888
WSCC General line (Iqaluit)	867-979-8500
Stanton Hospital (Emergency)	867-669-4100
Stanton 24 hour hot line	867-669-4115
Stanton Hospital (General Inquires)	867-669-4111
Cambridge Bay Health Center	867-983-4500
RCMP Cambridge Bay	867-983-0123 867-983-1111
RCMP Yellowknife	867-669-1111
RCMP Iqaluit	867-979-0123 867-979-1111
Nunavut Coroner's Office	867-975-7292 867-222-0393
Yellowknife Coroner's Office	867-920-8713
Adlair (Cambridge Bay)	867-983-2569 867-983-2247
Air Tindi	867-669-8218 (Ext. 8292)
Summit Air	867-669-9789 (Ext. 221)
Arctic Sunwest	867-873-4464
Great Slave Helicopters	867-873-2081

Telephone Call Record Sheet

Use one page per call

Call Taken/Made by:		Ext. No.		Date:		Time:	
---------------------	--	----------	--	-------	--	-------	--

Call Source: Government <input type="checkbox"/>	Media <input type="checkbox"/>	Employee <input type="checkbox"/>	Employee Family <input type="checkbox"/>	Public <input type="checkbox"/>
Assistance Offer Other <input type="checkbox"/>	<input type="checkbox"/>			

Caller Details:			
Name:			
Title/Relationship			
Organization/Department			
Phone Number:		Fax Number	
Message For:		Return call by: (Time)	
Message Information : Request			

Action Required	Call Back: <input type="checkbox"/>	Send Fax: <input type="checkbox"/>	Wants Meeting: <input type="checkbox"/>	Will Call You <input type="checkbox"/>
Actioned By:		Date:		Time: <input type="checkbox"/>

Log of Events

Aim: To provide TMAC Management (and in some cases the Police and other Authorities) with an up-to-date and sequential record of circumstances and occurrences during an emergency, or emerging incident. The Log outlines the actions taken in response to each of these events.

Page Number		of	Date:	Location:
Name:			Position:	
Contact Numbers:				
Time:	Activity:			

Signature: _____

Notes: